SIGMA-DELTA CONVERSION WITH ANALOG, NONVOLATILE TRIMMED QUANTIZED FEEDBACK

Abstract of the Disclosure

An Nth-order sigma-delta analog-to-digital converter (ADC) system having multilevel quantized feedback. A multilevel quantized feedback stage incorporates a multibit, current-mode digital-to-analog converter (DAC).

5   In one embodiment, reference current sources for the DAC may comprise a plurality of floating-gate MOS transistors so that analog nonvolatile precision linearity trimming of the feedback DAC may be accomplished. Calibration of the DAC may be performed at a relatively low refresh rate, for

10 example, only at instances when the sigma-delta ADC system is activated.